

## APPENDIX B. AGENCY LETTERS

**THIS IS NOT A PERMIT**

**State of Indiana**  
**DEPARTMENT OF NATURAL RESOURCES**  
**Division of Fish and Wildlife**  
**Early Coordination/Environmental Assessment**

**DNR #:** ER-17402

**Request Received:** January 27, 2014

**Requestor:** Indiana Department of Natural Resources  
Ken W Cote  
Division of Entomology & Plant Pathology  
PO Box 29  
Clear Creek, IN 47426

**Project:** 2014 Kudzu control treatment sites

**County/Site info:** Clark - Crawford - Clay - Dubois - Floyd - Gibson - Greene - Harrison - Jefferson -  
Jennings - Knox - Lake - LaPorte - Lawrence - Martin - Morgan - Orange - Posey -  
Starke - Sullivan - Vigo - Warrick - Washington

The Indiana Department of Natural Resources has reviewed the above referenced project per your request. Our agency offers the following comments for your information and in accordance with the National Environmental Policy Act of 1969.

If our agency has regulatory jurisdiction over the project, the recommendations contained in this letter may become requirements of any permit issued. If we do not have permitting authority, all recommendations are voluntary.

**Regulatory Assessment:** Formal approval by the Department of Natural Resources under the regulatory programs administered by the Division of Water is not required for this project.

**Natural Heritage Database:** The Natural Heritage Program's data have been checked. Attached is a list of the managed lands, natural communities, and species that have been documented within 1/2 mile of the treatment sites, as indicated. Division of Nature Preserves does not anticipate any impacts to the nature preserve, plants, insects, or natural communities as a result of the kudzu treatments.

**Fish & Wildlife Comments:** Avoid and minimize impacts to fish, wildlife, and botanical resources to the greatest extent possible, and compensate for impacts. The following are recommendations that address potential impacts to the animal species noted in the attachment:

1) BIRDS:  
Eradication of kudzu and revegetation with native plants should have a positive impact on birds and their habitats.

2) NORTHERN CRAWFISH FROG:  
We recommend not using clopyralid at the Sul-2 site, which is near the crawfish frog record. Based on the crawfish frog life history and what we understand about this herbicide, we believe it would be better to use either metsulfuron-methyl or triclopyr at the Sul-2 treatment site.

3) REPTILES:  
The Lap-2 site is west of Springfield Fen Nature Preserve; therefore, we do not foresee any impacts to the Eastern massasauga, Blanding's turtle, or spotted turtle as a result of the kudzu treatment.

4) MUSSELS & FISH:  
The herbicide used in the eradication of Kudzu could be of extreme importance in this case and others that are close to streams/rivers. Those herbicides that leach into the ground, and eventually into the stream over time, should be avoided (i.e. Gramaxil, Tordon, Garlon). Those herbicides that have a very short life and don't leach into the

**Attachments:** A - General Information

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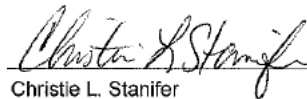
ground should be used in areas like Org-2, Jnn-13, Jnn-14, and Wsh-1 where fish or mussel impacts are possible (glyphosate might be a good one to use). No matter what is used, it should never be sprayed directly into the stream, and prevailing winds should be considered, to avoid unintentionally treating the stream in addition to the targeted areas.

**5) BADGER:**

Badgers are a wide ranging species that prefer an open, prairie-type habitat, with Indiana being at the eastern edge of their natural range. The range of the badger continues to expand as a result of land-use changes from forest to farmland and open pastureland. Impacts to the American badger or its preferred habitat are unlikely as a result of this project.

**Contact Staff:**

Christie L. Stanifer, Environ. Coordinator, Fish & Wildlife  
Our agency appreciates this opportunity to be of service. Please contact the above staff member at (317) 232-4080 if we can be of further assistance.



Christie L. Stanifer  
Environ. Coordinator  
Division of Fish and Wildlife

**Date:** February 26, 2014

**Attachments:** A - General Information

**ER-17402: Managed lands, communities, and species within ½ mile of the sites indicated.**

(NOTE: FC = Federal Candidate, SE=State Endangered, SCC=State Special Concern, ST=State Threatened, SR=State Rare, WL=Watch List)

Cly-5: MANAGED LAND (north of site): Chinook Fish and Wildlife AreaFlo-4: MANAGED LAND (site within property): Hardin Ridge PreserveSul-1: MANAGED LAND (site within property): Minnehaha Fish and Wildlife AreaWck-1: MANAGED LAND (site on northeast boundary): Angel Mounds State Historic SiteWck-2: MANAGED LAND (south of site): Lincoln State ParkLak-1: PLANTS (all southwest of site):

Zigzag Bladderwort	Utricularia subulata	ST
Black-fruited Spike-rush	Eleocharis melanocarpa	ST
Forked Aster	Aster furcatus	SR
Small Purple-fringe Orchis	Platanthera psycodes	SR
Slim-spike Three-awn Grass	Aristida intermedia	SR
Rushlike Aster	Aster borealis	SR
Forked Bluecurl	Trichostema dichotomum	SR
Spoon-leaved Sundew	Drosera intermedia	SR

Org-2:

## INSECTS (east of site):

Jeannel's Cave Copepod	Diacyclops jeanneli	ST
A Carrion Beetle	Necrophilus pettiti	ST

## ANIMALS:

Barn Owl	Tyto alba	SE
Northern Cavefish	Amblyopsis spelaea	SE

Lap-2 (all records east of site):

MANAGED LAND: Springfield Fen Nature Preserve

COMMUNITIES: (1) Fen; and (2) Circumneutral Seep

## PLANTS:

Marsh Valerian	Valeriana uliginosa	SE
Hairy Valerian	Valeriana edulis	SE
Hemlock Parsley	Conioselinum chinense	SE
Calamint	Satureja glabella var. angustifolia	SE
Leiberg's Witchgrass	Panicum leibergii	ST
White-edge Sedge	Carex debilis var. rudgei	SR
Tufted Hairgrass	Deschampsia cespitosa	SR
White Camas	Zigadenus elegans var. glaucus	SR
Northern Witchgrass	Panicum boreale	SR
Bog Bluegrass	Poa paludigena	WL
Small White Lady's-slipper	Cypripedium candidum	WL

## INSECTS:

A Moth	Aethes patricia	SE
Opalescent Apamea	Apamea lutosa	SE
The Wood-colored Apamea	Apamea lignicolora	ST
Golden Borer Moth	Papaipema cerina	ST
Beer's Blazing Star Borer Moth	Papaipema beeriana	ST
The Giant Sunflower Borer Moth	Papaipema maritime	ST
Silver-bordered Fritillary	Boloria selene myrina	ST
The Marsh Fern Moth	Fagitana littera	ST
Newman's Brocade	Meropleon ambifuscum	ST
The Royal Fern Borer Moth	Papaipema speciosissima	ST
The Included Cordgrass Borer	Spartiniphaga includes	ST
A Noctuid Moth	Macrochilo Louisiana	ST
A Noctuid Moth	Capis curvata	ST

A Katydid	Cicadula straminea	ST
A Katydid	Neoconocephalus exilis canorus	SR
A Katydid	Laevicephalus acus	SR
A Moth	Eubaphe meridian	SR
A Moth	Eucosma bilineana	SR
A Moth	Eucosma bipunctella	SR
A Moth	Eucosma giganteana	SR
A Moth	Leucania inermis	SR
A Moth	Leucania multilinea	SR
A Moth	Parasa indetermina	SR
A Moth	Macrochilo absorptalis	SR
A Noctuid Moth	Macrochilo hypocritalis	SR
A Noctuid Moth	Meropleon diversicolor	SR
A Noctuid Moth	Nola cilicoides	SR
A Noctuid Moth	Gabara subnivosea	SR
A Leafhopper	Mesamia nigradorsum	SR
A Leafhopper	Scapholdeus ochraceus	SR
Graceful Spur-throated Grasshopper	Melanoplus gracilis	SR
The Long-nosed Elephant Hopper	Bruchomorpha extensa	SR
The Sand Barrens Grammia	Grammia phyllira	SR
Little Virgin Tiger Moth	Grammia virguncula	SR
Mulberry Wing Skipper	Poanes massasoit	SR
Long Dash Skipper	Polites mystic	SR
Fingered Dagger Moth	Acronicta dactylina	SR
Graceful Underwing	Catocala gracilis	SR
Large Hypenodes	Hypenodes caducus	SR
Salt Marsh Wainscot	Leucania linita	SR
Heracleum Stem Borer Moth	Papaipema harrisii	SR
A Borer Moth	Papaipema rigida	SR
The Mayapple Borer Moth	Papaipema rutila	SR
Spartina Borer Moth	Spartiniphaga inops	SR
Gray Comma	Polygonia progne	SR
Forked Grass-veneer Moth	Crambus bidens	SR
Gemmed Cordgrass Borer	Peoria gemmatella	SR
The Ironweed Borer Moth	Papaipema limpid	SR
Many-lined Wainscot Moth	Leucania multilinea	SR
Black-dashed Apamea	Apamea nigrior	SR
Elegant Prominent	Odontotia elegans	SR
The St. John's Wort Borer Moth	Papaipema lysimachiae	SR
<b>ANIMALS:</b>		
Eastern Massasauga	Sistrurus catenatus catenatus	FC & SE
Spotted Turtle	Clemmys guttata	SE
Blanding's Turtle	Emydoidea blandingii	SE
American Badger	Taxidea taxus	SSC
<b><u>Sul-2:</u> ANIMALS (north of site):</b>		
Northern Crawfish Frog	Rana areolata circulosa	SE
Yellow-crowned Night-heron	Nyctanassa violacea	SE
<b><u>Jnn-12:</u> ANIMAL (west of site):</b>		
Barn Owl	Tyto alba	SE
<b><u>Jnn-13:</u> MUSSELS (in Vernon Fork Muscatatuck River north of site):</b>		
Little Spectaclecase	Villosa lienosa	SSC 2011
Kidneyshell	Ptychobranhus fasciolaris	SSC
<b><u>Jnn-14:</u> MUSSELS (in Graham Creek northwest of site):</b>		
Little Spectaclecase	Villosa lienosa	SSC
Kidneyshell	Ptychobranhus fasciolaris	SSC
Salamander Mussel	Simpsonia ambigua	SSC
Purple Lilliput	Toxolasma lividus	SSC
<b><u>Wsh-1:</u> MUSSEL (in Blue River southeast of site):</b>		
Wavyrayed Lampmussel	Lampsilis fasciola	SSC

# DNR

Indiana Department of Natural Resources

Michael R. Pence, Governor  
Cameron F. Clark, Director

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February 21, 2014

Kenneth Cote  
Indiana DNR, Division of Entomology & Plant Pathology  
Bloomington Field Office  
P.O. Box 29  
Clear Creek, Indiana 47426

State Agency: Indiana Department of Natural Resources

Re: Project information regarding the 2014 Kudzu Eradication Project (DHPA #15758)

Dear Mr. Cote:

Pursuant to Indiana Code 14-21-1 the Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology ("DHPA") has conducted a review of the materials received by the DHPA on January 27, 2014 for the above indicated project in Clark, Crawford, Clay, Dubois, Floyd, Gibson, Greene, Harrison, Jefferson, Jennings, Knox, Lake, LaPorte, Lawrence, Martin, Morgan, Orange, Owen, Posey, Starke, Sullivan, Vigo, Warrick and Washington counties, Indiana.

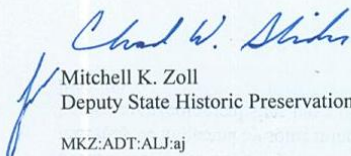
There are numerous archaeological sites in the proposed counties and potentially within or adjacent to the proposed project areas. However, it is our understanding that the proposed project includes the use of herbicide. Please be advised that the use of herbicide may cause damage to headstones, grave markers, and memorials. All chemical treatment should avoid contact with any headstones, grave markers, or memorials. It is our understanding that the only site that is considered to have an erosion threat, and thus may be impacted by some minor ground disturbance, is located in the city of Paoli in Orange County. However, no currently known archaeological sites have been recorded in that location, and no archaeological investigations will be necessary in that location.

Based on our analysis, we do not believe that any historic properties will be altered, demolished, or removed by the proposed project.

If any archaeological artifacts, features, or human remains are uncovered during construction, state law (Indiana Code 14-21-1-27 & 29) requires that the discovery must be reported to the Department of Natural Resources within two (2) business days. In that event, please call (317) 232-1646.

If you have any further questions regarding this determination, please contact the DHPA. Questions about archaeological issues should be directed to Amy Johnson at (317) 232-6982 or [ajohnson@dnr.IN.gov](mailto:ajohnson@dnr.IN.gov). Questions about historic buildings or structures pertaining to this project should be directed to Ashley Thomas at (317) 234-7034 or [asthomas@dnr.IN.gov](mailto:asthomas@dnr.IN.gov). Additionally, in all future correspondence regarding the above indicated project, please refer to DHPA #15758.

Very truly yours,

  
Mitchell K. Zoll  
Deputy State Historic Preservation Officer  
MKZ:ADT:ALJ:aj

The DNR mission: Protect, enhance, preserve and wisely use natural, cultural and recreational resources for the benefit of Indiana's citizens through professional leadership, management and education.

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